

## **CLAIMS**

What is claimed is:

1. A multimedia signal transmitting apparatus for processing at least one multimedia signal according to at least one compression method , the apparatus comprising:
  - a receiving/transferring module for receiving the multimedia signal and transferring the multimedia signal to a corresponding first digital multimedia signal and outputting the first digital multimedia signal;
  - a rate measuring module for measuring a first transmitting rate corresponding to the first digital multimedia signal outputted from the receiving/transferring module, then getting a first transmitting rate;
  - a processing module receiving the first digital multimedia signals and selecting a compression method by a predetermined transmitting rate and the first transmitting rate outputted from the rate measuring module ; and combining all output digital signals of the processing module as a second digital multimedia signal; and
  - a transmitting module, transmitting the second digital multimedia signal transmitted from the processing module by the predetermined transmitting rate.
2. The apparatus of claim 1, wherein a wireless protocol selected by the transmitting module is from a group of IEEE802.11a, IEEE802.11b, IEEE802.11g, and Home RF.
- 25 3. The apparatus of claim 1, wherein the compression method are selected from a group of MP3, MPEG-1, MPEG-2, MPEG-4, MPEG-7, and MPEG-21.
4. The apparatus of claim 1, wherein the input multimedia signals comprise at least one analog multimedia signal.

5. The apparatus of claim 1, wherein the input multimedia signal comprise at least one digital multimedia signal and at least one analog multimedia signal selectively.

5 6. The apparatus of claim 1, further comprising an infrared transmitting module for converting the second digital multimedia signal to an infrared and transmitting the infrared.

7. An multimedia signal transmitting method, at least one predetermined compression method and a predetermined transmitting rate being predetermined, the method comprising:

10 receiving at least one input multimedia signal;

transferring the multimedia signals to get at least one corresponding first digital multimedia signal;

measuring a first transmitting rate corresponding to each the first digital multimedia signal, then getting at least one first transmitting rate;

15 selecting a corresponding compression method and compressing the first digital multimedia signal for output;

combining all compressed signal as a second digital multimedia signal; and

transmitting the second digital multimedia signal by the predetermined transmitting rate.

20 8. The method of claim 7, wherein a wireless protocol selected for transmitting the second digital multimedia signal is a group of IEEE802.11a, IEEE802.11b, IEEE802.11g, and Home RF.

9. The method of claim 1, wherein the at least one predetermined compression method is selected from a group of MP3, MPEG-1, MPEG-2, MPEG-4, 25 MPEG-7, and MPEG-21.

10. The method of claim 8, further comprising the following step:

transferring the second digital multimedia signal to an infrared and outputting the infrared.

11. The method of claim 7, wherein the input multimedia signals comprise at least one analog multimedia signal.

12. The method of claim 7, wherein the input multimedia signals comprise at least one digital multimedia signal and at least one analog multimedia signal selectively.

5 13. A multimedia signal transmitting apparatus for transmitting an output signal in a predetermined rate, the apparatus comprising:

a receiving/transferring module for

receiving a first multimedia signal and a second multimedia signal, and

10 transferring both signals into a first digital multimedia signal and a second digital multimedia signal, outputting both signals;

a rate measuring module for measuring a first transmitting rate corresponding to the first digital multimedia signal and a second transmitting rate corresponding to the second digital multimedia signal;

15 a processing module receiving the first digital multimedia signals and the second digital multimedia signal, compressing the first digital multimedia signal by a first compression method and compressing the second digital multimedia signals by a second compression method, combining compressed the first digital multimedia signal and the second digital multimedia signal as the output signal, wherein selecting the first compression method and the second compression method by the first transmitting rate and the second transmitting rate and the predetermined rate, wherein the output signal rate is less than the predetermined transmitting rate; and

20 25 a transmitting module, transmitting the output signal by the predetermined transmitting rate.

14. The apparatus of claim 13, the transmitting module transmitting the output signal by wireless broadcast.

15. The apparatus of claim 13, wherein the first compression method and the second compression method are selected from a group of MP3, MPEG-1, MPEG-2, MPEG-4, MPEG-7, and MPEG-21.
16. The apparatus of claim 13, wherein the first compression method and the second compression method are AV signals.  
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